

The Impact of European Union's Free Trade Agreements on Türkiye's Foreign Trade: Trade Diversion

Cüneyt ÇATUK¹

¹ Dr., Şırnak University, cuneytcatak@hotmail.com, ORCID: 0000-0002-9843-7037

Abstract: This study investigates the trade diversion effects stemming from the European Union's (EU) Free Trade Agreements (FTAs) with third countries—particularly Canada and Algeria—on Türkiye's import structure. As a non-EU member bound by the EU-Türkiye Customs Union, Türkiye is compelled to align with the Common External Tariff but is systematically excluded from the EU's bilateral trade negotiations. This institutional asymmetry creates the potential for both direct and indirect trade diversion, whereby third-country exporters route goods through the EU to exploit tariff advantages. Using detailed trade data from 2004 to 2023 and disaggregated product-level analysis across HS chapters (notably Chapters 10, 27, 28, 29, 72, 79, and 84), this study demonstrates that trade diversion is both sector-specific and tariff-sensitive. Empirical findings show strong diversionary patterns in energy-related and agricultural commodities, whereas capital goods and chemical sectors show limited or no diversion. The analysis is supported by a comparative assessment of customs duty structures and trade flows between Türkiye, Canada, and Algeria vis-à-vis the EU. Panel gravity model estimations using Poisson Pseudo Maximum Likelihood (PPML) reveal statistically significant diversion effects, confirming that Türkiye's exclusion from the EU FTAs with Canada and Algeria has a measurable negative impact on direct import volumes. These econometric results substantiate the descriptive findings and provide robust evidence for policy intervention. The results corroborate the theoretical predictions of Vinerian trade theory and are consistent with existing empirical literature on preferential trade agreements. The study contributes to the broader discourse by offering micro-level evidence from a non-FTA signatory state embedded in a customs union framework. Policy recommendations are offered to mitigate asymmetries in trade governance and to enhance Türkiye's strategic agency in global commerce.

Keywords: Foreign Trade, Free Trade Agreements, Trade Diversion, Customs Union, Sectoral Analysis

Jel Codes: F10, F14, F15, F13, L16

Avrupa Birliği'nin Serbest Ticaret Anlaşmalarının Türkiye Dış Ticareti Üzerindeki Etkisi: Ticaret Sapması

Cite: Çatuk, C. (2025). The impact of European Union's free trade agreements on Türkiye's foreign trade: Trade diversion *Fiscaeconomia*, 9(4), 1847-1872.
<https://doi.org/10.25295/fsecon.1677273>

Submitted: 16.04.2025

Accepted: 28.06.2025



Copyright: © 2025. (CC BY) (<https://creativecommons.org/licenses/by/4.0/>).

Öz: Bu çalışma, Avrupa Birliği'nin (AB) üçüncü ülkelerle—özellikle Kanada ve Cezayir ile—imzaladığı Serbest Ticaret Anlaşmaları'nın (STA) Türkiye'nin ithalat yapısı üzerindeki ticaret sapması etkilerini incelemektedir. AB üyesi olmamakla birlikte Gümrük Birliği'ne taraf olan Türkiye, Ortak Gümrük Tarifesi'ni uygulamakla yükümlü olmakta; ancak AB'nin ikili ticaret müzakerelerine doğrudan katılamamaktadır. Bu kurumsal asimetri, üçüncü ülke ihracatçılarının AB üzerinden Türkiye'ye dolaylı mal yönlendirmesi yoluyla vergi avantajı elde etmesine olanak tanıyarak ticaretin yönünü değiştirebilmektedir. 2004-2023 dönemine ait ayrıntılı dış ticaret verileri kullanılarak HS sınıflamasına göre belirli sektörlerde (özellikle 10., 27., 28., 29., 72., 79. ve 84. fasıllar) gerçekleştirilen ürün bazlı analizler, ticaret sapmasının sektöre özgü ve tarife duyarlı olduğunu ortaya koymaktadır. Bulgular, enerji ve tarım gibi belirli sektörlerde güçlü ticaret sapması etkilerine işaret ederken; sermaye malları ve kimyasallar gibi bazı sektörlerde bu etkinin sınırlı olduğunu göstermektedir. Bu analiz, Türkiye, Kanada ve Cezayir'in AB ile olan ticaret ilişkileri çerçevesinde hem gümrük vergisi yapıları hem de ticaret akımları bakımından karşılaştırmalı olarak gerçekleştirilmiştir. Poisson Pseudo Maximum Likelihood (PPML) yöntemiyle tahmin edilen panel yerçekimi modeli, AB'nin Kanada ve Cezayir ile yaptığı STA'ların Türkiye'nin bu ülkelerden doğrudan ithalatını anlamlı düzeyde azalttığını göstermektedir. Bu ekonometrik bulgular, veri temelli gözlemleri doğrulamakta ve politika yapıları için güçlü bir dayanak teşkil etmektedir.

Çalışmanın bulguları, Viner'in klasik ticaret teorisiyle örtüşmekte ve tercihli ticaret anlaşmalarına ilişkin mevcut ampirik literatürle tutarlılık göstermektedir. Bununla birlikte, bir serbest ticaret anlaşmasına dahil olmayan, ancak gümrük birliği ile entegre bir ekonominin karşılaştığı mikro düzeyde ticaret sapması örnekleriyle literatüre katkı sunmaktadır. Araştırmanın sonunda, Türkiye'nin küresel ticaretteki stratejik hareket alanını güçlendirmek ve kurumsal asimetrisi azaltmak için çeşitli politika önerileri sunulmuştur.

Anahtar Kelimeler: Dış Ticaret, Serbest Ticaret Anlaşması, Ticaret Sapması, Gümrük Birliği, Sektörel Analiz
Jel Kodları: F10, F14, F15, F13, L16

1. Introduction

Türkiye's integration into global trade networks accelerated in the 1980s with the adoption of an export-oriented growth strategy and deepened further with the establishment of a Customs Union agreement with the European Union (EU) in 1996 (Habikoğlu, 2007, p. 66). While the Customs Union provided Turkish exporters with duty-free access to the EU market and facilitated alignment with European trade standards, it also introduced significant structural constraints. Most notably, the Customs Union obliges Türkiye to align its external trade policy with the EU, without granting it decision-making power in the formulation of trade agreements.

This asymmetry has become particularly problematic as the EU has expanded its network of Free Trade Agreements (FTAs) with third countries. Under the current arrangement, third countries gain duty-free access to the Turkish market via the EU, even in the absence of a bilateral agreement with Türkiye. In contrast, Turkish exporters do not benefit from reciprocal market access to these third countries unless Türkiye signs its own FTAs—a process that many partners either delay or avoid in order to maintain their asymmetric advantage (Eren, 2013; Usta, 2023).

A Free Trade Agreement (FTA) is an international legal arrangement between two or more countries that eliminates or reduces tariffs on goods originating from member countries and sets a framework for preferential trade relations (Athukorala, 2019). The primary objective of FTAs is to reduce trade barriers—such as tariffs, quotas, and technical standards—and to increase competitiveness by enabling economies of scale (Kalaycı, 2017, p. 134; Doğan & Uzun, 2014, p. 239). FTAs also influence firms' market selection strategies, providing them with access to new regions and enhancing their global reach (Turgut & Ersöz, 2024).

The EU's "Global Europe" strategy, introduced in 2006, significantly expanded its use of FTAs as a strategic tool to boost exports and secure access to key markets and resources (European Commission, 2006, p. 11). However, Türkiye's exclusion from these agreements—despite being bound by their trade implications—has led to distortions in its trade flows. This phenomenon is known as trade diversion, a concept originating from Vinerian trade theory, which refers to a shift in imports from a more efficient supplier (the third country) to a less efficient one (an FTA partner), due to the presence of tariff preferences.

As illustrated in Figure 1, trade diversion in Türkiye often occurs when third countries such as Algeria gain preferential access to the Turkish market through their FTA with the EU. Turkish importers redirect their purchases through the EU to benefit from tariff exemptions, while Turkish exporters are unable to access Algerian markets under similar conditions. This results in both welfare losses and competitive disadvantages for Turkish firms.

Given this policy asymmetry, the present study investigates whether FTAs signed by the EU with third countries result in trade diversion effects in Türkiye's foreign trade. The analysis focuses on two countries—Canada and Algeria—that have signed FTAs with the EU but not with Türkiye. Using import data between 2000 and 2023, the study examines

Türkiye's direct imports from these countries in five major product categories and compares them with parallel imports from the EU. The aim is to identify whether shifts in trade flows coincide with the implementation of EU FTAs, and to assess whether such shifts are consistent with trade diversion mechanisms driven by differential tariff structures.

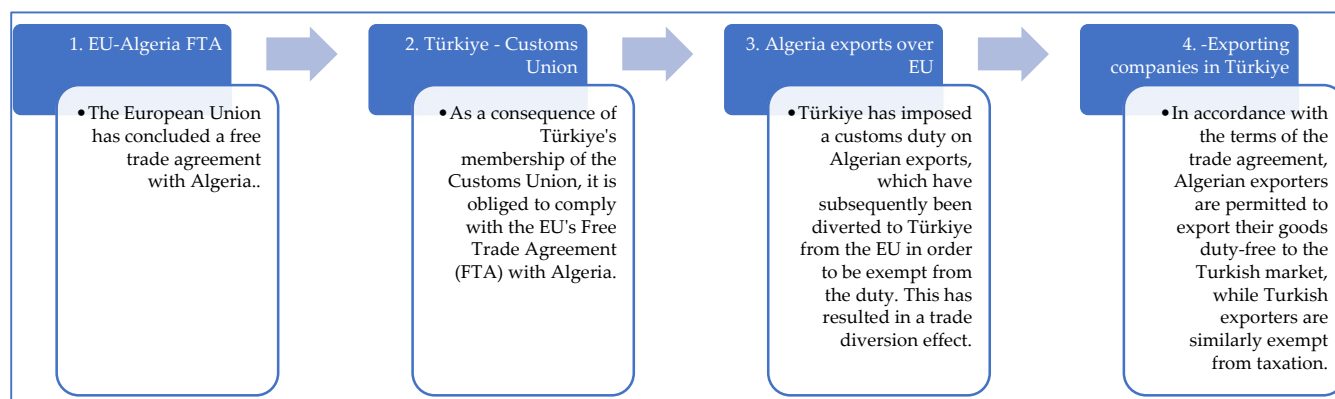


Figure 1. Trade diversion Sample

2. Literature Review

The literature on Türkiye's position within the European Union's (EU) Free Trade Agreement (FTA) network offers extensive insight into the trade creation/diversion effects, institutional asymmetries, and sectoral vulnerabilities emerging from the Customs Union framework.

Several foundational studies have investigated the static trade effects of the Customs Union. Özkale & Karaman (2006), through a sector-based analysis, observed that while Türkiye's import demand is income-elastic, it shows limited responsiveness to price changes. Their findings revealed that the Customs Union had no uniform net trade effect: it was trade-creating in certain sectors, trade-diverting in others, and entirely neutral in some. This heterogeneity underscores the need for sector-specific evaluation in trade impact studies.

Building on structural trade considerations, Küçüksakarya (2014) emphasized the importance of industrial production and intra-industry trade in Türkiye's evolving trade profile. Although not directly addressing trade diversion, the thesis suggested that Türkiye's trade policies—particularly in the context of FTAs—should be formulated in alignment with sectoral competitiveness and value-added integration.

Erdem (2015) analyzed the agricultural trade outcomes of Türkiye's FTAs, finding that both exports and imports increased post-agreement, with no evidence of trade contraction. However, the study did not assess whether this expansion reflected trade creation or diversion, and thus remains only partially relevant to the present inquiry focused on diversion effects.

On a broader macroeconomic scale, Emir (2017) examined how FTAs have influenced the economic relationship between Türkiye and the EU. The study acknowledged mutual trade gains but highlighted Türkiye's constrained agency in shaping FTA terms due to its non-member status, which imposes structural disadvantages under the Customs Union.

The issue of asymmetric exposure to EU-negotiated FTAs has been directly addressed in several recent works. Şahaner (2019), in a policy-oriented master's thesis, contended that the EU's FTAs with third countries have caused significant trade diversion for Türkiye. The thesis proposed countervailing strategies, including the insertion of special provisions for Türkiye in EU FTAs—similar to those used in the Andorra and San Marino cases—or empowering Türkiye to adopt interim compensatory measures. Notably, the thesis mislabels "Andorra" as "Angora," a minor error requiring correction in future citations.

Aktaş & Kaplan (2020) conducted one of the most empirically grounded analyses on the topic, examining how sectoral tariff levels condition the extent of trade diversion. Their findings indicate that in commodity groups where Türkiye applies low or zero import tariffs, trade diversion is negligible. Conversely, in sectors with higher tariffs or restrictive non-tariff measures, trade diversion is pronounced. This directly supports the core hypothesis of the present study and is fully aligned with Viner's trade theory.

Kızıltan (2021) expanded the discussion by analyzing how bilateral FTAs signed by the EU systematically disadvantage Türkiye. He argued that many FTA partners exploit their preferential access to Türkiye's market while postponing or avoiding agreements with Türkiye. To address this imbalance, the study recommends embedding binding clauses for Türkiye within EU FTAs, modeled after arrangements with Andorra and San Marino.

From a policy harmonization perspective, Köse (2022) highlighted the delays and inconsistencies Türkiye faces when attempting to align its trade policy with the EU's. These delays undermine Türkiye's access to third-country markets and reveal the administrative and diplomatic difficulties inherent in unilateral compliance with EU trade architecture.

Usta (2023) provided a detailed analysis of legal and institutional barriers that obstruct Türkiye's full participation in EU-led trade negotiations. The study advocates for synchronous negotiations or the legal inclusion of Türkiye in all EU FTAs to prevent continued trade diversion and mitigate competitive disadvantages.

Hakan (2024) adopted a comparative macro-trade approach, evaluating Türkiye's trade with 22 countries before and after FTA implementation. While the study found that FTAs generally foster trade growth—specifically citing the post-Brexit agreement between Türkiye and the United Kingdom—it did not distinguish between trade creation and trade diversion. As such, its findings are relevant for contextualizing the benefits of bilateral FTAs but do not directly inform the diversion-focused scope of the current analysis.

Taken together, this literature establishes that FTAs are often beneficial in expanding trade volumes, but they also highlight a recurring structural issue: the asymmetric and non-reciprocal nature of Türkiye's engagement with EU-led trade agreements. Although prior studies identify the trade distortion problem and offer qualitative or sectoral insights, few provide product-level, time-series-based empirical evidence of trade diversion in the context of specific countries such as Canada and Algeria. This study seeks to fill that gap by examining the diversion effects associated with EU FTAs in five key product groups over the 2000–2023 period.

3. Theoretical Framework: Customs Union Theory and Key Economic Contributions

The theory of customs union has gone through various developments by various economists for analyzing the welfare impact of PTA. This section distils important theoretical points of reference from the classic works of the founding contributors of the new theories of international trade -Jacob Viner, James Meade, Richard Lipsey, Franz Gehrels, Charles Cooper and Bernard Massell- in order to provide a firm theoretical framework for understanding trade creation and diversion.

Jacob Viner is the one who conceptualizes the terms trade creation and trade diversion in the context of customs unions (Viner, 1950). Trade creation is to replace more cost inefficient domestic production with lower cost goods being produced by another member country so that for the same level of resources used the world can produce more. Trade diversion, on the other hand, arises when imports switch from a more efficient third country to a less efficient partner only on account of a tariff preference, which can lead to a fall in global welfare. As Viner pointed out, the first movement is consistent with the principles of free trade, the second privileges protectionist forces, and encompasses a

misinformed allocation of resources. He stressed that the net welfare effect of a customs union depends on the relative strengths of these two forces (Dayal & Dayal, 1977).

Most notably, James Meade (1955) followed Viner in constructing a partial equilibrium model to measure the welfare gains and losses of the production and consumption effects. He furnished an apparatus for comparing possible gains from trade creation and trade diversion against the losses accruing therefrom; specifying crucial parameters like the elasticities of demand and supply and the terms of trade that determine the welfare impact (Meade, 1955). In addition to outlining the model, Meade pointed out a weakness in Viner's argument by noting that trade diversion could be still a welfare-gain if specific conditions obtain. Thus, the reduction in import taxes (and associated reduction in prices) leads to a higher level of welfare as long as "trade expansion"—the extra consumption caused by the price fall—can be achieved (especially when the benefit to consumers at the margin exceeds the productivity cost to industrial workers of competing against the higher cost imports) (McNulty, 1975). This difference stressed the necessity to take into account consumption responses and demand flexibility in customs union analysis which Viner's model had inadvertently suppressed.

Richard Lipsey (1957) was the first to make an important critique (of Viner's basic customs union model) by questioning the assumption of welfare loss from trade creation. Lipsey claimed that a customs union, in addition to modifying the geographic pattern of production stressed by Viner, changes the geographic pattern of consumption as well, because of changes in relative prices between the member countries. He brought the notion of consumption effects, meaning that the low-cost non-member trade could be diverted to high-cost member trade, and yet consumers in the importing country could gain from lower prices—with more consumption and a positive net welfare effect. Lipsey showed in a simplified model that trade diversion could, at least in some circumstances, result in a net welfare gain, particularly if demand elasticities are considered. This analysis strengthened the second-best nature of trade policy: partial liberalization can produce indeterminate welfare effects, depending on both production and consumption effects (Lipsey, 1957).

Single country approach was also proposed by Franz Gehrels (1956), who considered certain effects of customs union on the trade policy and terms of trade of a member country. He illustrated that trade diversion does not necessarily lower welfare if the union strengthens the country's bargaining power or improves its terms of trade, thus providing an alternative interpretation different from Viner's setup (Gehrels, 1956). Also, further criticisms, as emphasized by McNulty (1975), pointed to a limitation of Gehrels' general equilibrium assumption on the preference formation system—the absence of welfare effects for the excluded foreign countries. This model provides a more convincing case for customs unions, given certain assumptions, however, its singular consideration of the home country leaves questions of generalizability unanswered. Ignoring the negative externalities imposed on third countries, as Mishan observed, weakens the general equilibrium defense of trade-diverting customs unions (McNulty, 1975).

Critical voices regarding the interest rate were raised in other studies as well: Cooper & Massell (1965) provided a view from the perspective of developing countries. They also claimed that unilateral tariff reduction may induce a higher level of welfare than discriminatory regional integration in some cases. Their analysis surfaced the significance of foregone revenues, industrial policy, and trade agreement administrative complexity to small and developing economies. Lim (2001) found that the preferential operation of such trade agreements also contributes negatively to welfare effects, thereby questioning the economic motivations of preferential agreements. Pomfret (1986) argues that the net welfare effect of such PTAs is usually less than that under non-preferential liberalization, which implies that preferential agreements are made on political rather than economic grounds (Johnson, 1965, Cooper & Massell, 1965, Pomfret, 1986).

These theoretical contributions serve as a veritable intellectual basis for investigating Türkiye's relationship of EU-centred commercial diversion. The dichotomy between trade

creation and trade diversion, the dependence on initial distortions, and the side-effects of regional integration on developing countries might provide important insights into observing current policy dynamics.

4. Methodology And Data

4.1. Case Selection

The primary objective of this research is to analyze the phenomenon of trade diversion experienced by Türkiye due to Free Trade Agreements (FTAs) signed between the European Union (EU) and third countries that do not have parallel agreements with Türkiye. As of 2023, multiple countries have established FTAs with the EU yet lack a corresponding FTA with Türkiye or have agreements that are not yet in force. These countries include Algeria, Canada, South Africa, Andorra, Armenia, Vietnam, Azerbaijan (noting that Türkiye maintains a separate Preferential Trade Agreement with Azerbaijan), Iraq, Jordan, Kazakhstan, San Marino, CARIFORUM member states (Antigua & Barbuda, Bahamas, Barbados, Belize, Dominica, Trinidad & Tobago, Dominican Republic, Grenada, Guyana, Jamaica, St Kitts & Nevis, St Lucia, St Vincent & Grenadines, and Suriname), SADC countries (Botswana, Eswatini, Lesotho, Namibia), ESA group (Madagascar and Zimbabwe), Central American countries (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua), West African nations (Ivory Coast and Ghana), and Pacific nations (Fiji, Papua New Guinea, Samoa, Solomon Islands) (Usta, 2023).

Considering practical research constraints, including data availability and the substantial volume of direct trade with Türkiye, Canada and Algeria were strategically selected as case countries for this study. This selection provides an analytically meaningful contrast: Canada represents a developed North American economy that recently established an extensive FTA with the EU (CETA, effective since 2017), whereas Algeria symbolizes a developing economy in the MENA region with a long-standing FTA in place since 2005 and prior access to the Turkish market through the Generalized System of Preferences (GSP). Thus, these two cases collectively offer diverse economic contexts and temporal variations, enhancing the generalizability and robustness of the findings. However, it is essential to explicitly acknowledge that, while Canada and Algeria provide illustrative examples, generalizing the results across other EU trade partners without FTAs with Türkiye warrants caution, as sectoral structures and trade dynamics may differ significantly among these countries.

4.2. Method

The analysis conducted in this study employs a comparative case study approach, focusing explicitly on trade diversion phenomena resulting from FTAs between the EU and third countries that have no parallel FTAs with Türkiye. To systematically investigate this issue, commodity groups are classified according to the Harmonized System (HS2), as outlined by the World Customs Organization (WCO). This classification provides an appropriate level of aggregation that facilitates both broad comparisons across product categories and the identification of specific commodity shifts.

Data utilized for analysis are sourced primarily from the Turkish Statistical Institute (TUIK), ensuring credibility and consistency across cases. To enhance the analytical rigor, the five most significant commodity groups, determined based on import values from each selected country (Canada and Algeria) into Türkiye prior to the implementation of their respective FTAs with the EU, were identified. The analysis then proceeds to assess the extent of trade diversion by comparing the import volumes of these commodity groups entering Türkiye directly from the selected countries against the volumes entering indirectly through the EU, before and after the implementation of the EU's FTAs.

This methodological approach, while predominantly descriptive, is effective for qualitatively highlighting shifts in trade patterns potentially indicative of trade diversion. Nevertheless, it is essential to acknowledge explicitly that the approach assumes observed shifts in sourcing patterns following the establishment of an FTA between the EU and a

third country are indicative of trade diversion. Consequently, alternative influencing factors, such as global price fluctuations, supply shocks, tariff changes, or macroeconomic conditions, are not systematically controlled for in this descriptive analysis. Therefore, results should be interpreted cautiously, and this inherent limitation of the descriptive methodology must be clearly recognized.

To partially mitigate this limitation, additional external sources—such as official trade statistics from the European Commission and governmental agencies of the case countries—are employed to corroborate the identified trends, providing supplementary context and strengthening the overall robustness of the conclusions drawn from the data.

In addition to the descriptive analysis, this study also incorporates a panel data gravity model to estimate the causal impact of the EU's FTAs on Türkiye's import flows. The analysis was conducted using Python programming language, which provided flexibility for implementing the gravity model and conducting panel data estimations. The panel gravity model, following Yang & Wong (2012), allows for controlling unobserved heterogeneity across countries and time, thereby improving inference on the trade-diverting effects of FTAs. This model includes standard gravity variables such as GDP and distance, and employs a binary variable indicating the presence of an active FTA between the partner country and the EU. Estimations are conducted using Poisson Pseudo Maximum Likelihood (PPML) to handle zero trade flows and heteroskedasticity. This empirical strategy enhances the explanatory power of the study and complements the descriptive insights with robust econometric evidence.

4.2.1. Panel Data-Based Gravity Model Approach

To complement the descriptive analysis and provide a more robust econometric framework, this study employs a panel data gravity model to evaluate the potential trade diversion effects caused by the European Union's Free Trade Agreements (FTAs) with third countries. The model focuses specifically on Türkiye's import flows from EU member states, Canada, and Algeria between 2000 and 2023.

The baseline model is formulated as follows:

$$\log(\text{Import}_{jt}) = \beta_0 + \beta_1 \log(\text{GDP}_{T,t}) + \beta_2 \log(\text{GDP}_{j,t}) + \beta_3 \log(\text{DIST}_j) + \beta_4 \text{FTA}_{j,t} + \epsilon_{jt} \quad (1)$$

Where;

Import_{jt} : Türkiye's imports from country j in year t ,

$\text{GDP}_{T,t}$: Gross Domestic Product of Türkiye in year t ,

$\text{GDP}_{j,t}$: Gross Domestic Product of partner country j in year t ,

DIST_j : Bilateral distance between Türkiye (Istanbul) and the capital city of country j

$\text{FTA}_{j,t}$: A dummy variable equal to 1 if country j has an active FTA with the EU in year t , and 0 otherwise

ϵ_{jt} : Error term.

The panel dataset comprises annual import data collected from official sources, covering EU member countries, Canada, and Algeria. EU countries are coded with a continuous FTA dummy of 1 throughout the observed period, whereas the dummy takes the value of 1 for Canada from 2017 (due to CETA) and for Algeria from 2005 (following the EU–Algeria Association Agreement).

4.3. The phenomenon of trade diversion in Türkiye's Example of Canada

The Comprehensive Economic and Trade Agreement (CETA) between the European Union and Canada entered into force in February 2017, with the intention of fostering deeper economic integration between the two economies (Sülün, 2017). However, for third-party countries such as Türkiye—which maintains a Customs Union with the EU without being a full member—this agreement has generated asymmetrical trade effects and potential trade diversion outcomes.

As illustrated in Table 1, Türkiye's foreign trade balance with Canada reveals significant fluctuations during the period 2015–2023. In 2015, Türkiye experienced a trade deficit of approximately USD 258 million, which widened to USD 333 million in 2016.

Following the implementation of CETA in 2017, this deficit surged dramatically to over USD 1.1 billion, marking a historical peak in Türkiye's bilateral trade imbalance with Canada.

Although Türkiye's trade balance gradually improved after 2018, achieving a trade surplus of USD 551 million in 2021, and continuing this trend through 2022 and 2023, the initial post-CETA period reflects a significant structural shock. This sudden deterioration suggests that Canadian exports—benefiting from preferential access to the EU market—may have entered the Turkish market via indirect channels, facilitated by the Customs Union framework. As such, CETA may have inadvertently created a backdoor for Canadian goods to outcompete Turkish products both in the EU and domestically.

Relying solely on bilateral trade balance figures to assess the impact of CETA on Türkiye would be insufficient. It is essential to adopt a multidimensional analytical framework that considers:

- The evolution of product-level trade flows,
- Changes in the origin of imports (direct vs. EU-transit routes),
- The sectoral composition of trade (e.g., intermediate vs. final goods),
- And potential welfare losses associated with displaced domestic production.

From a trade diversion perspective, CETA appears to have realigned trade preferences in a way that disadvantages Türkiye. In particular, the surge in Canadian imports in 2017—coinciding with the agreement's implementation—suggests a diversion of trade flows from previously dominant suppliers to new Canadian entrants benefitting from lower tariffs within the EU market.

This case underscores the strategic vulnerability faced by Türkiye due to its asymmetric integration with the EU trade regime. While it participates in the Customs Union, it lacks decision-making power in EU trade negotiations, resulting in potential adverse spillovers when the EU signs free trade agreements with third countries.

Table 1. Türkiye's Foreign Trade with Canada (2015-2023)

	Export	Import	Trade Balance
2015	670,628,355	929,038,076	-258,409,721
2016	729,486,858	1,062,957,251	-333,470,393
2017	1,045,596,640	2,166,996,335	-1,121,399,695
2018	1,271,660,504	1,980,917,150	-709,256,646
2019	899,974,082	1,562,733,489	-662,759,407
2020	949,697,884	980,212,140	-30,514,256
2021	1,622,305,567	1,070,385,976	551,919,591
2022	1,789,818,243	1,302,252,426	487,565,817
2023	1,519,774,338	1,118,842,304	400,932,034

Source: TURKSTAT

4.3.1. Sectoral Composition of Canadian Exports to Türkiye: Evidence of Product-Level Trade Diversion

To gain a more nuanced understanding of potential trade diversion effects resulting from the EU–Canada Comprehensive Economic and Trade Agreement (CETA), it is crucial to analyze the sectoral composition of Canadian exports to Türkiye at the product level. Table 2 presents the five most imported product chapters from Canada to Türkiye, based on Harmonized System (HS2) classifications, for the pre-CETA period of 2012 to 2016. The year 2016 was selected as a reference point, as it immediately precedes the agreement's implementation and reflects the most recent trade structure uninfluenced by the policy shift.

Table 2. Türkiye's most imported products from Canada

	Chapter	2012	2013	2014	2015	2016
Edible vegetables, roots & tubers	7	92,429,664	132,022,220	205,058,232	232,260,536	265,779,422
Mineral fuels, mineral oils and products derived from their distillation, bituminous substances, mineral waxes	27	187,936,047	69,273,964	76,802,824	61,250,576	143,580,044
Iron and steel	72	161,937,550	159,501,559	116,603,395	86,510,365	89,020,858
Boilers, machinery, mechanical devices and equipment, nuclear reactors, their parts and components	84	57,476,191	80,769,357	74,910,847	53,964,240	58,526,693
Cereals	10	93,414,100	93,616,478	32,554,300	48,283,695	55,844,492
Total		953,716,582	1,356,564,655	1,107,270,371	929,038,076	1,062,957,251

Source: TURKSTAT

As shown in Table 2, the dominant export category from Canada to Türkiye in 2016 was Chapter 7 – Edible vegetables, roots, and tubers, which witnessed a consistent and significant increase over the five-year period. Imports in this category grew nearly threefold from USD 92 million in 2012 to USD 266 million in 2016, indicating a strengthening of Canada's market position in Türkiye for this agricultural sector even before CETA.

In contrast, Chapter 27 – Mineral fuels and oils presents a more volatile trend. While valued at nearly USD 188 million in 2012, Turkish imports from Canada in this category declined to USD 143 million by 2016, despite a partial recovery from prior years. Such fluctuations could reflect global commodity price trends rather than trade policy per se, but remain relevant in understanding structural dependencies.

Imports of iron and steel (Chapter 72) showed a sharp decline, from USD 162 million in 2012 to USD 89 million in 2016, raising the possibility of competitive displacement or shifting sourcing preferences. The machinery category (Chapter 84) remained relatively stable, with marginal growth between 2012 and 2016, suggesting a consistent yet limited role of Canada as a technology supplier to Türkiye.

Conversely, imports of cereals (Chapter 10) declined significantly during this period—from USD 93 million to USD 56 million—which may be attributed to domestic supply shifts or competition from alternative suppliers under more favorable trade agreements.

These patterns provide an important baseline to assess the post-CETA landscape. A significant shift in these categories after 2017, particularly an increase in Canadian-origin imports via the EU, would constitute strong evidence of product-level trade diversion. The observed pre-agreement trends—especially the upward trajectory in edible vegetables and machinery—highlight the sensitivity of Turkish markets to shifts in trade policy that exclude Türkiye but affect its trading partners.

Ultimately, this sectoral analysis reinforces the argument that trade diversion cannot be fully understood through aggregate figures alone. Product-specific trends reveal underlying shifts in trade flows and competitive dynamics, and help isolate the policy-induced distortions stemming from agreements like CETA.

4.3.2 Post-CETA Trade Dynamics in Chapter 7: Canada's Direct Export Advantage

To further assess the impact of the EU–Canada Comprehensive Economic and Trade Agreement (CETA) on Türkiye's trade patterns, Table 3 presents the evolution of Türkiye's imports under Chapter 7 – Edible Vegetables, Roots, and Tubers from both the European Union and Canada for the period 2017–2023. This chapter was the most imported Canadian product group to Türkiye prior to CETA and thus serves as a critical case for analyzing product-level trade dynamics in the post-agreement period.

Table 3. Türkiye's Chapter 7 Imports of EU and Canada

	EU	Canada
2017	25,782,197	164,564,840
2018	22,409,540	123,069,422
2019	19,785,690	87,530,789
2020	21,487,879	218,025,098
2021	19,534,682	257,815,985
2022	16,732,843	399,423,660
2023	31,293,212	288,918,182

Source: TURKSTAT

The data reveals a significant surge in Canada's direct exports to Türkiye under Chapter 7 following the implementation of CETA. While Canadian exports in this category stood at USD 164.5 million in 2017, they experienced a 75% increase, reaching nearly USD 289 million in 2023. Notably, despite a temporary decline in 2018 and 2019—possibly linked to market adjustments or non-tariff conditions—exports rebounded sharply during the pandemic years and peaked at USD 399 million in 2022, before slightly contracting in 2023.

Conversely, Türkiye's imports of Chapter 7 products from the European Union declined overall between 2017 and 2022, with a modest recovery only in 2023. This pattern suggests that Canada's export growth did not occur through indirect entry via the EU but rather through direct trade channels with Türkiye.

From a customs policy standpoint, this observation is consistent with Türkiye's uniform application of the Common External Tariff (CET) under the Customs Union. As established by the European Commission (1996), Türkiye imposes the same customs duties on imports from all third countries, regardless of the origin or the trade agreement status of those countries. Therefore, Canadian exporters have no tariff-related incentive to channel their goods via the EU to access the Turkish market. This supports the hypothesis that the surge in imports from Canada under Chapter 7 occurred through direct trade, not via trade diversion through Europe.

Nevertheless, the post-CETA growth in Canadian exports, despite no change in the tariff regime applied by Türkiye, implies a competitive advantage potentially driven by enhanced production capacity, price competitiveness, or non-tariff benefits derived from increased economies of scale and efficiency gains enabled by the agreement. In this context, the growing preference for Canadian-origin products over EU-origin alternatives suggests a reorientation of sourcing preferences within the Turkish import market in favor of Canada, albeit not through classical trade diversion mechanisms.

This dynamic highlights the indirect effects of preferential trade agreements on non-participating countries such as Türkiye. Although no formal diversion route exists via the EU, the structural consequences of CETA—such as increased Canadian competitiveness, improved quality standards, or more predictable supply chains—may still alter Türkiye's import composition in favor of Canada.

4.3.3. Indirect Trade Diversion through Fiscal Arbitrage: The Case of Chapter 27

The trade trajectory of Chapter 27 – Mineral Fuels, Mineral Oils, and Products of Their Distillation between Türkiye, Canada, and the European Union provides a compelling case for analyzing indirect trade diversion driven by customs duty differentials post-CETA.

In 2016, prior to the implementation of CETA, Türkiye imported approximately USD 143 million worth of mineral fuels and derivatives from Canada. However, following the agreement's entry into force in 2017, a marked decline was observed, with Canadian exports to Türkiye falling to USD 35 million in that same year. In contrast, Türkiye's imports of mineral fuels from the European Union increased significantly, rising from USD 2.3 billion in 2016 to over USD 3.2 billion in 2017 (see Table 4).

Table 4. Türkiye's Chapter 27 Imports of EU and Canada

	AB	Canada
2017	3.250.170.781	35.457.524
2018	3.107.394.696	112.165.633
2019	1.979.062.716	130.700.885
2020	1.228.324.935	111.594.218
2021	2.151.904.043	101.383.918
2022	3.342.734.591	205.116.531
2023	1.843.956.577	51.746.089

Source: TURKSTAT

A significant increase in Canadian exports to Türkiye was observed in 2022, reaching USD 205 million, the highest value recorded in the given period. However, this increase proved to be temporary, with a drastic contraction to USD 51 million in 2023, potentially due to market corrections or trade rerouting dynamics.

This pattern may be interpreted through the lens of fiscal arbitrage and trade diversion via indirect routes. According to the Government of Canada (2022), Chapter 27 goods benefited from an 84% customs duty elimination under CETA. While Türkiye, as part of the Customs Union, aligns its Common External Tariff (CET) with the EU in many sectors, Chapter 27 is partially excluded, and tariff differentials between Türkiye and the EU still exist.

This divergence provides an incentive for Canadian exporters to first direct their shipments to the EU, leveraging the full tariff elimination, and subsequently re-export the goods to Türkiye from an EU member state. This process—known as tariff circumvention or indirect trade diversion—allows Canadian firms to bypass Türkiye's relatively higher duties by utilizing EU-based distribution hubs.

In this context, the significant increase in EU-origin mineral fuel imports into Türkiye, especially during years when Canadian exports contracted, may partially reflect Canadian-origin goods entering Türkiye via EU re-exports. This claim is consistent with the discrepancy between Canada's decreasing direct exports to Türkiye and the steady rise of EU exports in the same category.

Moreover, the structural growth in Canadian mineral fuel exports to Europe—rising by 63.2% post-CETA and reaching USD 164 million in 2021—further supports the hypothesis that the EU has become a strategic gateway for Canadian energy products to reach broader markets, including Türkiye.

This case exemplifies a second-order trade diversion effect. While Canada is not directly displacing other suppliers in the Turkish market through tariff advantages, it is utilizing the preferential access provided by CETA to reconfigure its supply chains, ultimately enabling access to non-signatory markets like Türkiye through indirect trade flows.

These findings highlight the strategic disadvantages Türkiye faces due to its exclusion from the EU's bilateral FTAs. The absence of harmonized customs regimes in all product chapters—particularly in energy—creates arbitrage opportunities that disadvantage domestic producers and shift trade patterns in favor of third countries benefitting from asymmetric liberalization.

4.3.4. The Case of Cereals (Chapter 10): A Clear Manifestation of Indirect Trade Diversion

The evolution of Türkiye's imports in Chapter 10 – Cereals further exemplifies the asymmetrical impact of the EU–Canada Comprehensive Economic and Trade Agreement (CETA) on non-signatory economies. Table 5 presents Türkiye's import volumes from the European Union and Canada between 2017 and 2023, while also reflecting Canada's exponential growth in cereal exports to the EU over the same period.

Table 5. Türkiye's Chapter 10 Imports of EU and Canada

	EU	Canada
2017	322,333,095	35,457,524
2018	209,241,835	3,814,114
2019	442,588,234	198,804,919
2020	424,906,043	159,528,495
2021	358,100,104	73,838,681
2022	313,055,828	2,653,012
2023	209,270,449	14,916,888

Source: TURKSTAT

While Türkiye imported USD 164 million worth of cereals from Canada in 2016, this figure declined dramatically to USD 2.6 million in 2022 and remained low at USD 14.9 million in 2023. During the same period, Turkish imports from the European Union increased steadily, reaching a peak of USD 442 million in 2019, and remaining above USD 300 million through much of the post-CETA era.

This dramatic reversal in direct imports from Canada is particularly noteworthy when juxtaposed with the surge in Canadian cereal exports to the EU, which grew from USD 90 million in 2016 to 1 billion in 2021, and further expanded to USD 1.4 billion in 2022 and 1.6 billion in 2023 (Government of Canada, 2022; European Commission, 2024). Such growth clearly signals that Canada reoriented its cereal exports toward the EU market, leveraging the full tariff elimination under CETA.

Given Türkiye's non-membership in CETA and the inconsistent alignment of customs duties with the EU, Canadian exporters appear to have redirected their supply chains, using the EU as a distribution intermediary. These goods—initially destined for Türkiye—may now enter the Turkish market as EU-origin products, thereby benefitting from preferential tariff rates under the Customs Union. This strategy reflects a classic case of indirect trade diversion facilitated by regulatory arbitrage.

Moreover, this redirection is not merely speculative; it is economically rational. While Türkiye applies the Common External Tariff (CET) in line with the EU, the application is neither universal nor comprehensive across all product groups. Chapter 10 is one such area where discrepancies exist. Thus, Canadian firms have both the incentive and the logistical capacity to ship cereals to the EU and re-export them to Türkiye under more favorable tariff conditions, sidestepping Türkiye's direct trade channel.

This phenomenon demonstrates that:

CETA-induced supply chain restructuring can disadvantage non-party states,

Tariff harmonization gaps between the EU and Türkiye generate exploitable loopholes,

And ultimately, Türkiye's dependence on EU trade infrastructure can result in the erosion of its direct bilateral trade relationships with major exporters like Canada.

As a result, the Turkish cereal market experiences not only trade diversion, but also a loss of transparency in product origin and a reduction in its bargaining leverage in global agricultural trade.

4.3.5. Structural Shifts in the Iron and Steel Sector (Chapter 72): Evidence of Quota-Driven Trade Reconfiguration

The iron and steel industry, classified under Chapter 72 of the Harmonized System, constitutes a strategically vital sector for Türkiye's industrial and trade policy. The post-CETA trade trajectory in this sector reflects a complex interplay between tariff exemptions, quota regimes, and indirect trade flows shaped by the structural asymmetry between Türkiye's Customs Union obligations and the EU's external trade agreements.

Table 6. Türkiye's Chapter 72 Imports of EU and Canada

	EU	Canada
2017	6,194,324,623	160,931,557
2018	6,516,826,289	296,279,063
2019	5,808,977,391	135,435,140
2020	5,852,929,502	84,830,307
2021	8,906,357,177	234,758,830
2022	8,740,180,433	196,837,326
2023	6,956,211,317	100,979,819

Source: TURKSTAT

Prior to the implementation of CETA, Türkiye imported approximately **USD 89 million** worth of iron and steel products from Canada in 2016. In the immediate aftermath of CETA, this figure rose to **USD 160 million in 2017**, suggesting an initial increase in direct trade. However, imports subsequently fluctuated, particularly during the global economic contraction of 2020. By 2023, Canadian exports to Türkiye in this category had **stabilized around USD 100 million**.

More notably, Türkiye's imports from the European Union in Chapter 72 showed an upward trajectory, increasing from USD 4.4 billion in 2016 to USD 6.1 billion in 2017, peaking at USD 8.9 billion in 2021 before slightly declining in the following years. This trend coincides with the robust growth in Canada's iron and steel exports to Europe, which expanded from USD 124 million in 2016 to over USD 1 billion in 2021, facilitated by CETA's elimination of customs duties and the fulfillment of 93% of the export quota (Government of Canada, 2022).

Importantly, Türkiye has unilaterally eliminated customs duties on Chapter 72 products under the terms of the EU–Türkiye Customs Union (Bıyık, 2019). However, it remains excluded from CETA and thus does not benefit from the same tariff preferences as EU member states. As a result, Canadian exporters seeking to utilize the customs exemption must first export to the EU and then reroute shipments to Türkiye, thus engaging in a form of quota-driven indirect trade diversion.

This strategy allows firms to:

Circumvent Türkiye's non-preferential trade status,

Fulfill EU-based quota commitments, and

Access Türkiye as a secondary market via intra-EU transshipment, where goods legally acquire EU-origin status.

The pattern suggests that CETA has induced a structural shift in trade routes, whereby the EU functions as a logistical and fiscal gateway for Canadian exports to Türkiye, particularly in sectors with quota liberalization and mutual recognition agreements.

In this regard, Chapter 72 exemplifies how trade agreements that do not include third countries such as Türkiye can distort global value chains and create asymmetric competitive pressures. The long-term concern is that such arrangements erode Türkiye's position as a direct bilateral trading partner, instead making it dependent on EU-mediated trade structures, which may affect both cost efficiency and supply chain resilience.

Moreover, if quotas between Canada and the EU are expanded in future CETA revisions, it is likely that this form of indirect access to the Turkish market will also increase, thereby deepening the structural dependency and weakening Türkiye's autonomous trade policy leverage.

4.3.6. Chapter 84 – Boilers, Machinery and Mechanical Appliances: A Non-Diversion Sectoral Case

Chapter 84 of the Harmonized System—covering boilers, machinery, mechanical appliances, and their components—represents one of Türkiye's largest import categories,

both in terms of total value and supplier diversity. Within this chapter, the product groups HS 8411, 8412, 8413, and 8418 constitute the most heavily imported Canadian items.

Between 2016 and 2023, Türkiye applied low but positive customs duties on Canadian imports in this chapter, ranging as follows:

HS 8411: 3.2% to 4.1%

HS 8412: 2.2% to 4.2%

HS 8413: fixed at 1.7%

HS 8418: 1.9% to 2.2%

By contrast, no customs duties were applied to EU-origin products in Chapter 84, in accordance with Türkiye's obligations under the Customs Union. However, no changes occurred in the customs treatment of Canadian products either before or after the implementation of CETA, indicating no policy-induced incentive for Canadian exporters to reroute shipments via the EU to Türkiye.

Table 7. Türkiye's Chapter 84 Imports of EU and Canada

	EU	Canada
2017	14,847,630,130	74,575,612
2018	14,102,154,669	73,433,394
2019	11,999,585,525	67,481,695
2020	12,180,672,224	54,219,203
2021	14,571,333,192	56,436,957
2022	15,653,772,994	77,274,914
2023	18,260,510,940	72,319,142

Source: TURKSTAT

In 2017, Canadian exports in this category increased by 27% compared to 2016, reaching USD 74.5 million. Following a moderate contraction during the pandemic period, Canadian exports recovered to approximately USD 72 million by 2023. Despite these fluctuations, the overall trend in Canadian machinery exports to Türkiye remained relatively stable, showing no indication of a structural shift or policy-driven redirection.

On the other hand, Türkiye's imports from the EU in this chapter demonstrated a significant upward trend, reaching USD 18.2 billion in 2023, up from USD 14.4 billion in 2016. However, this growth is attributable to broader industrial recovery and increased capital goods demand, rather than displacement of Canadian suppliers.

Given the low and stable customs duties, combined with the absence of any tariff reductions stemming from CETA for Turkish-bound Canadian goods, it can be concluded that exporting via the EU does not provide a competitive advantage for Canadian firms in this sector. Accordingly, the data supports the interpretation that no meaningful trade diversion has occurred in Chapter 84.

This finding reinforces the idea that trade diversion under CETA is not uniform across all sectors, but rather depends on:

The relative tariff differentials between Canada and the EU,

The elasticity of substitution across suppliers,

And the existence of non-tariff advantages that might incentivize re-export strategies.

In Chapter 84, the absence of these drivers, coupled with consistent bilateral trade patterns, renders it a non-diversion benchmark sector within the broader analysis.

4.4. The Phenomenon of Trade Diversion: The Case of Algeria

The Free Trade Agreement (FTA) between the European Union (EU) and Algeria, which entered into force in 2005, marked a significant development in Algeria's trade integration with the EU (Usta, 2023, p. 21). Prior to this agreement, Algeria benefited from the Generalised System of Preferences (GSP) and enjoyed customs duty exemptions across various HS chapters up until 2014. By entering into a formal FTA with the EU, Algerian exporters acquired a more structured and permanent basis for preferential market

access—an arrangement that subsequently had indirect consequences for third countries, including Türkiye, due to the institutional structure of the EU–Türkiye Customs Union.

As presented in Table 8, Türkiye's trade balance with Algeria underwent considerable fluctuations in the pre- and post-FTA periods. In 2000, Türkiye recorded a trade deficit of USD 809 million, largely due to high energy imports. By 2004, the balance had shifted to a surplus of USD 180 million, as Turkish exports to Algeria expanded and imports declined. However, following the implementation of the EU–Algeria FTA in 2005, the balance briefly reverted to a deficit, indicating a potential realignment in trade flows, possibly driven by Algeria's enhanced trade engagement with the EU.

Table 8. Türkiye's Foreign Trade with Algeria (2000–2023)

	Export	Import	Trade Balance
2000	383,461,397	1,192,412,896	-808,951,499
2002	514,282,276	557,862,436	-43,580,160
2004	806,115,152	625,888,688	180,226,464
2005	807,138	861,809	-54,671
2007	1,231,724	943,808	287,916
2009	1,777,198	768,994	1,008,204
2011	1,470,547	1,150,325	320,222
2013	2,002,688	714,092	1,288,596
2015	1,825,874	740,547	1,085,327
2017	1,712,901	766,803	946,098
2019	1,865,739	720,249	1,145,490
2021	1,612,863	1,157,494	455,369
2023	2,461,713,873	1,418,567,016	1,043,146,857

Source: TURKSTAT

Following the agreement, Türkiye's trade with Algeria gradually shifted to a more favorable position. By 2023, the trade balance had reached a surplus of over USD 1 billion, driven primarily by Turkish industrial exports. Nevertheless, this aggregate improvement masks a more complex dynamic: the role of EU-origin products entering Türkiye indirectly, or of Algerian goods competing more effectively in Türkiye due to preferential EU integration.

In assessing the trade diversion potential of this agreement, it is important to consider that goods exported from Algeria to the EU under the FTA may have entered Türkiye through the EU Customs Union framework, benefiting from EU-origin cumulation provisions. Conversely, Türkiye's own exports to Algeria may have faced discriminatory treatment vis-à-vis EU competitors, since Türkiye was not a party to the Algeria–EU FTA, and thus not entitled to the same preferential terms.

Therefore, a comprehensive evaluation of the agreement's impact requires going beyond the bilateral trade flows between Türkiye and Algeria. It necessitates an investigation into:

Whether Algerian goods previously imported by Türkiye directly began to enter indirectly through EU member states, exploiting duty-free access,

Whether Turkish exports to Algeria lost competitiveness due to regulatory or tariff disadvantages, and

Whether sectoral shifts occurred in product categories also liberalized under the EU–Algeria agreement.

This case underscores the broader vulnerability of Türkiye's position in global trade agreements: as long as Türkiye is not included in the EU's external FTAs, its exporters and importers remain exposed to distortive effects of trade diversion and preference erosion. Despite achieving a trade surplus by 2023, the systemic risk of being left outside future EU trade agreements persists.

3.4.1. Sectoral Trade Structure Prior to the EU–Algeria Free Trade Agreement

In order to understand the potential for trade diversion resulting from the EU–Algeria Free Trade Agreement (FTA), it is essential to first examine the sectoral composition of Türkiye's imports from Algeria prior to the agreement's entry into force in 2005. Table 9 displays the five most significant product chapters in which Türkiye imported from Algeria, based on 2005 values. While annual variations in ranking do exist, the year 2005 is used as a benchmark to reflect the trade structure immediately preceding the implementation of the FTA.

Table 9. Türkiye's top 5 products imported from Algeria

	Chapter	2001	2002	2003	2004	2005
Mineral fuels, mineral oils and products derived from their distillation, bituminous substances, mineral waxes	27	1,060,320,131	538,470,722	462,328,291	551,043,353	744,327,857
Iron and steel	72	28,525	12,572,076	29,681,742	65,946,384	109,116,553
Zinc and zinc ware	79	0	0	0	3,048,384	1,759,879
Inorganic chemicals, precious metals, radioactive elements, organic-organic compounds of metals and isotopes	28	725,905	2,550,241	2,595,017	2,565,512	1,616,313
Organic chemical products	29	191,738	91,129	0	0	1,453,567
Total Import		1,063,982,706	557,862,436	500,550,597	625,888,688	861,809,333

Source: TURKSTAT

Between 2001 and 2005, Chapter 27 – Mineral fuels, mineral oils and derivatives dominated Türkiye's imports from Algeria, accounting for approximately 86% of total imports in 2005. This reflects Algeria's structural role as a major energy supplier in Türkiye's trade portfolio.

Chapter 72 – Iron and steel emerged as the second most important category, with imports rising dramatically from USD 28,000 in 2001 to over USD 109 million in 2005, signaling a sharp increase in industrial raw material trade just before the FTA's enforcement. This upward trend suggests a growing dependency on Algerian-origin semi-finished or raw iron and steel products.

Chapter 79 – Zinc and zinc products demonstrated relatively modest figures, yet is notable due to the abrupt initiation of trade in 2004, with imports reaching USD 3 million and then declining to USD 1.7 million in 2005. The sudden appearance of this chapter in the trade records raises questions about the timing of tariff liberalizations under the Generalised System of Preferences (GSP), and whether trade anticipation behavior occurred in advance of the FTA.

Inorganic chemicals and precious metals (Chapter 28) also recorded a 226% increase in imports between 2001 and 2005, although the highest value was observed in 2003. This category's moderate trade volume, combined with fluctuating yearly figures, suggests a sensitive sector responsive to tariff or regulatory shifts.

Finally, organic chemical products (Chapter 29), while accounting for only USD 1.4 million in 2005, experienced significant growth from USD 191,000 in 2001, despite no imports at all in 2003 and 2004. This discontinuity may reflect market volatility or supply-side constraints rather than policy impacts alone.

Overall, this sectoral overview of Türkiye's imports from Algeria prior to the EU–Algeria FTA serves as a crucial baseline for evaluating the post-agreement trade patterns. Identifying significant changes in these product categories—particularly shifts toward EU intermediated trade—would provide empirical evidence of trade diversion mechanisms rooted in asymmetric FTA coverage between the EU and Türkiye.

4.4.2. Post-FTA Trade Evolution in Chapter 27: The Algeria–EU–Türkiye Triangle and the Emergence of Indirect Trade Diversion

Following the implementation of the EU–Algeria Free Trade Agreement (FTA) in 2005, the evolution of trade under Chapter 27 – Mineral Fuels, Mineral Oils, and Derivatives offers compelling insights into the phenomenon of indirect trade diversion affecting Türkiye. As Türkiye is not a party to the EU–Algeria agreement but is integrated into the EU’s Customs Union, it remains susceptible to asymmetrical trade preferences and transit-based tariff circumvention.

Table 10. Türkiye’s Chapter 27 Imports of EU and Algeria

Year	EU	Algeria	Year	EU	Algeria
2004	698,739,371	551,043,353	2014	6,487,104,775	883,867,845
2005	936,676,894	744,327,857	2015	3,413,548,272	678,643,006
2006	1,627,791,060	535,509,451	2016	2,373,410,976	424,172,671
2007	1,616,098,814	802,603,995	2017	3,250,170,781	711,971,128
2008	2,985,588,859	1,240,384,262	2018	3,107,394,696	1,039,533,208
2009	1,890,808,452	596,888,805	2019	1,979,062,716	630,982,218
2010	2,573,166,491	929,170,299	2020	1,228,324,935	434,770,608
2011	5,510,493,693	1,131,147,115	2021	2,151,904,043	812,152,008
2012	7,388,893,500	904,786,169	2022	3,342,734,591	1,059,693,922
2013	6,656,904,945	683,870,711	2023	1,843,956,577	1,005,916,957

Source: TURKSTAT

From 2004 to 2023, Türkiye’s imports from Algeria in Chapter 27 doubled, rising from USD 551 million to over USD 1 billion, whereas imports from the EU increased 3.7 times, from USD 698 million to USD 1.84 billion, with peaks exceeding USD 7 billion in the early 2010s. While Algeria remained a major direct supplier, the exponential rise in EU-origin imports, particularly during the 2011–2014 period, suggests potential re-routing of Algerian-origin energy products through EU intermediaries.

This suspicion is strengthened when considering the evolution of Algeria’s exports to the EU: from USD 13.9 billion in 2004, these exports grew to USD 19.1 billion in 2005, and to over USD 41 billion by 2013, remaining at USD 40 billion in 2023 (Tradingeconomics, 2024). The sharp post-FTA increase in Algeria–EU trade, particularly in petroleum gases and oils (HS 2710 and 2711), aligns temporally with the redirection of trade flows observed in Türkiye’s EU-sourced imports.

Furthermore, the structure of customs duties applied by Türkiye reinforces this interpretation:

Under HS 2711, Algeria benefitted from GSP exemptions until 2014, after which Türkiye began applying customs duties of 8% and 0.7%, depending on the sub-category.

For HS 2710, Türkiye applied 0% duty between 2005–2013, before introducing tariffs between 3.5% and 4.7%.

Meanwhile, EU-origin imports remained exempt from all customs duties, allowing firms to capitalize on EU transit routes to bypass Turkish tariffs.

This duty differential created a strong incentive for Algerian energy companies to export first to the EU, then re-export to Türkiye, a clear case of indirect trade diversion via the Customs Union. The result is an artificial inflation of EU trade figures with Türkiye, and a distortion in the attribution of origin for energy imports.

It is also notable that between 2013 and 2014, Algeria’s imports from Türkiye increased tenfold, reaching USD 6.4 billion—an indication of Algeria’s growing integration into EU-based value chains, potentially supported by Turkish inputs processed in Europe.

In conclusion, the post-FTA landscape in Chapter 27 clearly illustrates a systemic trade distortion arising from the EU–Türkiye asymmetry in FTA participation. While Türkiye maintained robust direct trade with Algeria, the preferential access Algerian

firms gained through the EU facilitated circumvention of Turkish tariffs, undermining the integrity of direct trade channels and exposing Türkiye to the strategic vulnerabilities of third-party FTAs.

4.4.3. Chapter 28 – Inorganic Chemicals and Related Products: A Case of Non-Tariff-Induced Trade Dynamics

Chapter 28 of the Harmonized System, which includes inorganic chemicals, precious metals, and radioactive elements, provides a useful example for assessing whether the EU–Algeria Free Trade Agreement (FTA) resulted in trade diversion effects in Türkiye’s bilateral trade structure. The comparative evolution of Türkiye’s imports from both the European Union and Algeria in this product category is presented in Table 11.

Table 11. Türkiye's Chapter 28 Imports of EU and Algeria

28					
Year	EU	Algeria	Year	EU	Algeria
2004	310,517,338	2,565,512	2014	509,646,403	22,482,494
2005	336,742,874	1,616,313	2015	422,764,826	18,879,564
2006	376,862,788	2,040,787	2016	411,114,717	17,031,877
2007	434,942,056	8,114,202	2017	453,486,440	25,516,400
2008	518,922,567	3,237,057	2018	470,749,801	51,526,647
2009	363,576,589	2,764,443	2019	477,921,543	60,139,728
2010	412,862,402	3,614,288	2020	444,250,161	58,179,397
2011	522,080,914	1,762,229	2021	560,470,130	39,587,278
2012	482,981,761	1,500,737	2022	715,163,782	82,708,846
2013	503,245,472	8,162,069	2023	607,472,066	35,050,052

Source: TURKSTAT

In 2004, prior to the implementation of the FTA, Türkiye imported USD 2.56 million in Chapter 28 products from Algeria, compared to USD 310 million from the EU. After the agreement came into force in 2005, Algeria’s exports to Türkiye in this chapter fell by 63%, while imports from the EU rose to USD 336 million. This initial shift might suggest a crowding-out effect, but the longer-term trend tells a more nuanced story.

By 2023, Türkiye's imports from Algeria in this chapter had increased thirteenfold, reaching USD 35 million, while imports from the EU nearly doubled, rising to USD 607 million. The stronger growth in Algerian-origin imports (in relative terms) suggests that despite its initial post-FTA contraction, Algeria regained and expanded market access in this category.

This trend can be largely explained by the structure of customs duties applied:

Under the Generalized System of Preferences (GSP), Algeria enjoyed tariff exemptions from 2002 until 2014.

While the GSP privilege was revoked in 2014, certain product groups within Chapter 28 continued to face 0% tariffs, even for non-GSP or non-FTA countries.

As such, no tariff differential existed between EU- and Algeria-origin products in several subgroups of Chapter 28, eliminating the economic rationale for indirect trade via the EU. In other words, Algerian companies had no tax advantage in rerouting exports through EU countries to access the Turkish market.

Thus, this case provides a non-diversionary scenario, reinforcing the argument that trade diversion under asymmetric FTAs is sector-specific. Where tariff parity is preserved, and duty exemptions are universally applied, the likelihood of distortion is minimized. In this chapter, growth in Algerian-origin imports occurred independently of EU mediation, underscoring the limited impact of the FTA on Türkiye’s sourcing patterns in chemicals and related materials.

This finding contributes to the broader narrative that not all product groups are equally vulnerable to trade diversion, and that duty structure plays a central role in shaping the responsiveness of trade flows to preferential agreements.

4.4.4. Chapter 29 – Organic Chemical Products: A Sector of Limited and Ambiguous Trade Diversion

Chapter 29 of the Harmonized System, encompassing organic chemical products, presents a complex and inconclusive case regarding the impact of the EU–Algeria Free Trade Agreement (FTA) on Türkiye’s trade structure. While trade diversion is typically inferred through observable shifts in trade volumes and sourcing preferences following a change in trade policy, the erratic nature of imports from Algeria and the consistent dominance of EU suppliers in this category complicates the identification of clear patterns.

Table 12. Türkiye’s Chapter 29 Imports of EU and Algeria

Year	EU	Algeria	Year	EU	Algeria
2004	1,665,284,456	0	2014	2,043,693,260	424
2005	1,874,476,330	1,453,567	2015	1,599,439,821	0
2006	1,955,886,653	5,397,327	2016	1,518,650,640	0
2007	1,846,693,417	2,323,332	2017	1,875,257,166	4,343,576
2008	1,980,770,262	3,339,678	2018	1,873,524,826	11,150,912
2009	1,372,862,579	787,824	2019	1,642,425,355	1,086,038
2010	1,770,444,277	233,269	2020	1,515,405,040	2,322,981
2011	1,990,911,063	2,123,345	2021	2,058,539,288	123
2012	1,991,168,074	125,977	2022	2,176,881,279	7,863
2013	2,008,383,544	88,486	2023	1,857,238,220	0

Source: TURKSTAT

In contrast, Türkiye’s imports from the EU remained consistently high throughout the entire period, ranging between USD 1.3 billion (2009) and USD 2.1 billion (2022). These values suggest a structurally entrenched reliance on European suppliers for organic chemicals, regardless of Algeria’s tariff status.

Given these factors, the available evidence does not conclusively demonstrate trade diversion. While the post-FTA rise in EU-origin imports is notable, this trend aligns with existing industrial dependencies and stable European supply chains, rather than being the result of a redirection of Algerian trade through EU intermediaries.

More importantly, the negligible and intermittent nature of Algerian exports to Türkiye—even during years when customs duties were temporarily lifted—indicates supply-side constraints or limited competitiveness in this sector. As such, the low volume of trade does not create sufficient grounds to assess diversion in either direction.

4.4.5. Chapter 72 – Iron and Steel: Tax-Induced Trade Realignment and Partial Diversion

The evolution of Türkiye’s imports from Algeria in Chapter 72 – Iron and Steel illustrates the profound influence of tariff policy changes on bilateral trade flows, as well as the conditions under which indirect trade diversion via the EU may occur. As shown in Table 13, Türkiye’s imports from Algeria in this chapter increased significantly from USD 65.9 million in 2004 to a peak of USD 315.9 million in 2008, driven almost entirely by imports under HS code 7204 (pig iron), with a minor contribution from HS 7210 (flat-rolled steel).

Table 13. Türkiye's Chapter 72 Imports of EU and Algeria

72					
Year	EU	Algeria	Year	EU	Algeria
2004	3,092,738,591	65,946,384	2014	7,015,812,031	0
2005	3,935,834,867	109,116,553	2015	4,877,385,297	744
2006	4,244,512,654	162,138,448	2016	4,456,906,782	515
2007	6,077,120,539	110,576,060	2017	6,194,324,623	22,643
2008	7,219,966,124	315,887,865	2018	6,516,826,289	7,600
2009	4,444,686,380	154,710,505	2019	5,808,977,391	1,169,671
2010	6,923,096,303	121,551,049	2020	5,852,929,502	38,844
2011	8,008,012,381	2,554,952	2021	8,906,357,177	281,709,447
2012	8,216,152,691	0	2022	8,740,180,433	117,885,574
2013	7,747,305,546	0	2023	6,956,211,317	319,509,499

Source: TURKSTAT

The sharp decline in Algerian exports after 2008 coincides with Türkiye's increase in customs duties on HS 7204 products from 5% to 13% and 9%, depending on the product group. This tax escalation in 2009 immediately resulted in a 50% drop in imports from Algeria. In contrast, imports from the EU continued to rise, benefiting from zero-duty access under the Customs Union, which remained unchanged during the same period.

Between 2012 and 2014, Türkiye imported no iron and steel products from Algeria, while EU imports reached record highs exceeding USD 7–8 billion annually. This disparity indicates the potential emergence of trade deflection, where Algerian-origin iron and steel products were potentially re-exported to Türkiye via the EU to avoid high Turkish tariffs.

Such redirection is especially plausible in this sector for three reasons:

Homogeneity and fungibility of steel products allow for easy substitution of origin through minimal transformation.

Customs data asymmetry between declared origin and declared exporter can obscure actual sourcing.

Tariff differential between Algeria and the EU created a strong incentive for re-export strategies by intermediary firms.

Although Algerian direct exports in Chapter 72 resumed after 2015, they remained well below pre-2008 levels until a notable recovery in 2021 and 2023, when direct exports once again surpassed USD 280 million and USD 319 million, respectively. These fluctuations suggest that market conditions and tariff schedules, rather than consistent policy incentives, have governed the evolution of this trade relationship.

In sum, Chapter 72 exemplifies a sector where tariff increases led to temporary trade suppression, and the EU's zero-duty access enabled it to absorb demand, potentially via trade diversion mechanisms. While this diversion was not permanent, the episode demonstrates how tariff asymmetries in customs regimes can alter trade routes, especially when intermediary re-exportation offers a cost-minimizing alternative.

4.4.6. Chapter 79 – Zinc and Zinc Products: A Case of Micro-Level Trade Diversion

Chapter 79 of the Harmonized System, which encompasses zinc and zinc products, presents a micro-level illustration of trade diversion following a change in Türkiye's customs duty policy. Specifically, HS 7901, which includes unprocessed zinc, was imported by Türkiye from Algeria in 2004 and 2005 under a 0% customs duty regime. However, as detailed in Table 14, a customs duty of 2.5% was introduced in 2006, leading to an abrupt halt in direct Algerian exports and a simultaneous rise in Türkiye's imports from the European Union.

Table 14. Türkiye's Chapter 79 Imports of EU and Algeria

Year	EU	Algeria	Year	EU	Algeria
2004	94,451,456	3,048,384	2.014	221,521,164	0
2005	136,846,133	1,759,879	2.015	164,737,485	0
2006	297,601,576	0	2.016	149,751,365	0
2007	245,602,848	0	2.017	244,918,975	0
2008	152,988,414	145,853	2.018	286,344,457	0
2009	94,992,778	0	2.019	334,471,929	0
2010	134,540,167	0	2.020	310,922,643	0
2011	135,331,636	0	2.021	508,982,245	0
2012	113,043,033	0	2.022	430,185,325	0
2013	168,525,513	0	2.023	218,909,541	0

Source: TURKSTAT

This pattern reveals several important dynamics:

Pre-Tariff Trade Activity: In 2004 and 2005, Algeria exported USD 3 million and USD 1.75 million, respectively, to Türkiye under a duty-free regime, indicating competitive entry in the low-volume zinc segment.

Policy Shift and Immediate Decline: Following the imposition of a 2.5% customs duty in 2006, Algeria's direct exports dropped to zero, and remained at zero for the next 17 years (except a symbolic USD 145,853 in 2008).

Rising EU Imports: Concurrently, Türkiye's EU-origin imports of zinc rose sharply, reaching USD 297 million in 2006, and continuing to expand in subsequent years. The temporal correlation between Algeria's disappearance and the EU's expansion in this category raises a strong possibility of trade deflection.

Transit-Based Diversion: It is plausible that Algerian-origin zinc was redirected through EU-based intermediaries, re-exported under EU origin rules, and thereby exempted from Turkish tariffs under the Customs Union framework.

Given the marginal nature of Algerian zinc exports and the price sensitivity of unprocessed metals, the 2.5% tariff—though low in nominal terms—was likely sufficient to shift trade routes. The ease of reclassification, metal homogeneity, and lack of origin transparency in bulk commodities further facilitated this diversion.

This case stands out as a clear instance of tariff-induced trade diversion, demonstrating how:

Even small tariff changes can trigger complete reconfiguration of trade,

Preferential trade arrangements like the Customs Union can unintentionally exclude third-party suppliers,

And low-volume sectors can be just as vulnerable to distortion as strategic, high-volume industries.

4.5. Panel Data Gravity Model Estimation (PPML Approach)

The estimation results derived from the Poisson Pseudo Maximum Likelihood (PPML) gravity model reveal compelling evidence of trade diversion effects associated with the EU's Free Trade Agreements (FTAs) with Canada and Algeria. Most notably, the coefficient of the FTA dummy variable is -0.0265 and is highly statistically significant ($p < 0.001$). This negative sign implies that, holding all other factors constant, the existence of an FTA between the EU and these third countries correlates with a 2.65% decrease in Türkiye's direct imports from them.

This finding suggests that post-FTA, Canadian and Algerian exporters may have shifted their market entry strategies by re-routing their goods to Türkiye via the EU, thereby bypassing direct bilateral trade. Such a shift is consistent with the classical trade diversion mechanism outlined by Jacob Viner, wherein the formation of a customs union or preferential trade agreement redirects trade from a more efficient external supplier (in this case, Türkiye) to a less efficient partner within the preferential bloc (the EU).

The result is further supported by the strong statistical significance of traditional gravity variables. For instance, the coefficients for the log of partner GDP ($\beta=0.9739$, $p<0.001$) and Türkiye's GDP ($\beta=0.4334$, $p<0.001$) are positive and significant, indicating that economic size continues to be a principal driver of import flows. The distance variable, as expected, carries a negative coefficient ($\beta=-0.8328$, $p<0.001$), reinforcing the importance of proximity in bilateral trade.

Overall, the empirical evidence underscores that Türkiye's exclusion from specific EU-led FTAs has likely caused measurable trade diversion, leading to a structural disadvantage in accessing trade flows from certain third countries.

Table 15. PPML Estimates of the Panel Gravity Model for Trade Diversion

Dep. Variable	Imp		No. Observations:	695		
Pseudo R-squ.	0.8760		Df Residuals	690		
	coef	std err	z	P> z	[0.025	0.975]
Intercept	-102.546	6.64e-05	-1.54e+05	0.000	-10.255	-10.254
ln_GDP_T	0.4334	2.39e-06	1.81e+05	0.000	0.433	0.433
ln_GDP_E	0.9739	7.77e-07	1.25e+06	0.000	0.974	0.974
ln_DIST	-0.8328	1.8e-06	-4.62e+05	0.000	-0.833	-0.833
FTA	-0.0265	4.41e-06	-5.992.160	0.000	-0.026	-0.026

5. Discussion

The empirical results of this study reveal that the Free Trade Agreements (FTAs) signed between the European Union (EU) and third countries—such as Canada and Algeria—generate asymmetrical trade outcomes for Türkiye due to its exclusion from the EU's bilateral trade arrangements. While Türkiye is part of the EU's Customs Union, it does not automatically benefit from the EU's FTAs, which creates conditions conducive to trade diversion.

The evidence presented in this paper aligns with the conceptual framework of Viner (1950), who first introduced the notion of trade diversion, whereby tariff preferences shift imports away from more efficient external suppliers to less efficient partner countries due to artificial cost advantages. In the current context, the Customs Union's structure allows EU member states to import duty-free from FTA partners, while Türkiye may still impose tariffs on the same goods, leading to re-routing of trade through the EU to circumvent Turkish tariffs.

This pattern is particularly evident in sectors such as:

Chapter 27 (Mineral Fuels): Turkish imports from Canada declined significantly post-CETA, while imports from the EU rose sharply. Similarly, imports from Algeria declined when GSP advantages were revoked, with EU imports continuing to rise—consistent with findings from Fiorentino et al. (2007), who observed that exclusion from regional agreements leads to trade displacement for non-participating states.

Chapter 10 (Cereals) and Chapter 72 (Iron and Steel): These sectors showed notable realignment in sourcing preferences following the implementation of FTAs, in line with Kox & Lejour (2006), who emphasize that firms optimize supply routes based on tariff advantages and logistical access.

However, not all sectors reflected diversionary behavior:

In Chapter 84 (Machinery) and Chapter 28 (Inorganic Chemicals), no significant redirection of trade was observed, suggesting that low or zero Turkish tariffs can neutralize the trade-diverting effects of FTAs. This observation supports the findings of Eicher & Henn (2011), who argue that the magnitude of trade diversion is contingent on the depth of tariff differentials.

Furthermore, the case of Chapter 79 (Zinc) illustrates micro-level diversion driven by a modest 2.5% customs duty. This example confirms Baldwin's (2006) assertion that even small tariff changes can lead to significant shifts in trade routes for homogeneous and price-sensitive products.

The literature also identifies rules of origin, transshipment practices, and non-tariff measures as mediators in diversion mechanisms. In this study, such mediating variables are implied through indirect trade behavior (e.g., Canadian and Algerian goods entering Türkiye via EU countries), although further customs-level disaggregation would be needed for confirmation—an area flagged by Cadot et al. (2005). Importantly, these descriptive findings are further supported by the panel gravity model analysis using Poisson Pseudo Maximum Likelihood (PPML) estimation. The results show that the dummy variable representing the presence of an EU-FTA with Canada or Algeria has a statistically significant and negative coefficient, indicating a trade-diverting effect. This econometric evidence strengthens the descriptive interpretation by isolating the impact of EU's FTAs while controlling for GDP, distance, and other relevant factors.

In sum, the study's findings are largely consistent with the broader empirical literature on trade diversion under discriminatory liberalization schemes. However, it contributes novel sector-specific insights by showing how tariff asymmetries, product-level sensitivity, and supply chain dynamics determine the degree and form of diversion experienced by a third country like Türkiye.

These empirical findings resonate with the foundational customs union theories. Viner's (1950) concern about efficiency loss through trade diversion is empirically confirmed in sectors like mineral fuels and cereals, where imports were rerouted from more efficient sources (Canada, Algeria) to the EU. Likewise, Meade's (1955) emphasis on price-driven consumption effects and Lipsey's (1957) recognition of welfare ambiguity find partial support in chapters where diversion occurred despite moderate tariff gaps, implying elasticity-based consumption adjustments. Gehrels' (1956) terms-of-trade rationale also applies, as Türkiye's bargaining weakness vis-à-vis the EU exacerbates diversion. Finally, Cooper & Massell's (1965) critique about the administrative burden and structural disadvantages of partial liberalization holds especially true for Türkiye's limited role in EU FTA formation. Thus, this study not only validates but also extends classical customs union theory within the context of Türkiye's modern trade architecture.

6. Conclusion

This study confirms that Türkiye's asymmetric involvement in EU trade policy has resulted in sector-specific trade diversion, which distorts market competition, undermines transparency, and weakens the coherence of Türkiye's trade strategy. Drawing on detailed empirical analysis of Türkiye's import flows from Canada and Algeria across multiple HS chapters, the research demonstrates how FTAs signed by the EU with third parties have diverted trade away from direct bilateral routes toward indirect, EU-mediated channels.

These findings resonate with prior research by Estevadeordal et al. (2008) and Panagariya (1999), who argue that partial liberalization often creates adverse externalities for excluded nations—particularly when value chains can be redirected via FTA signatories. This study confirms such externalities and demonstrates their materialization in the Turkish context.

Key conclusions include:

Trade diversion is highly sensitive to tariff differentials. The greater the asymmetry between Türkiye's and the EU's external duties, the higher the incentive for rerouting trade via the EU.

Customs Union membership without full FTA alignment leaves Türkiye vulnerable to policy spillovers and competitive disadvantages.

Trade diversion may be sector-neutral, but its magnitude and occurrence are conditional on product type, price elasticity, and exporter strategy. These conclusions are empirically reinforced by the panel gravity model estimation. The PPML results confirm that EU FTAs with Canada and Algeria are associated with reduced direct import volumes from these countries to Türkiye. This underscores the structural nature of the

trade diversion mechanism and provides statistically robust evidence that complements the descriptive trends observed in the sectoral analysis.

7. Policy Recommendations

This study highlights Türkiye's structural vulnerability stemming from its asymmetric integration into the European Union's external trade architecture. Although Türkiye is a member of the EU Customs Union, its exclusion from EU-led Free Trade Agreements (FTAs) has resulted in significant trade diversion, particularly in tariff-sensitive sectors. To address these challenges and enhance Türkiye's strategic autonomy in trade policy, several actionable recommendations emerge.

Türkiye should engage in institutional negotiations with the EU to attain observer or consultative status during FTA processes. Such a mechanism—similar to those involving Norway or Switzerland—would allow Türkiye to anticipate potential spillover effects and protect its commercial interests before agreements are finalized. Simultaneously, expanding Türkiye's own FTA network, especially with countries already having agreements with the EU, would reduce the reliance on indirect trade via EU members and create a more level playing field.

Furthermore, policymakers need to assess which HS chapters are most exposed to diversion and consider selective tariff harmonization with EU rates. Aligning external tariffs strategically could mitigate artificial cost advantages and curb the incentive for transshipment. In addition, the development of advanced trade monitoring systems—based on customs-level analytics—would enable the detection of origin irregularities, re-export patterns, and indirect trade routes arising from asymmetrical agreements.

In cases where diversion adversely impacts local industries, temporary safeguard mechanisms or WTO-compliant compensatory measures may be warranted to cushion the economic shock. Moreover, drawing from the empirical evidence of this study, Türkiye should adopt sector-specific strategies tailored to the sensitivity of each product group. Sectors such as mineral fuels and cereals, which demonstrated pronounced diversion effects, may require immediate intervention, while others like machinery or inorganic chemicals appear resilient and may not necessitate additional policy response.

In conclusion, unless Türkiye secures a more inclusive role in shaping the EU's external trade agenda or strategically recalibrates its independent trade policy, it will continue to face structural disadvantages that undermine national competitiveness, distort trade patterns, and constrain long-term policy sovereignty.

References

- Aktaş, G., & Kaplan, Z. (2020). AB'nin serbest ticaret anlaşmalarının asimetrik etkisi ve Türkiye. *Uluslararası Ekonomi İşletme ve Politika Dergisi*, 4(1), 117–140.
- Andreosso-O'Callaghan, B. (2009). Economic structural complementarity: How viable is the Korea-EU FTA?. *Journal of Economic Studies*, 36(2), 147–167.
- Athukorala, P. (2019). Free trade agreements in the world trade system: Substance and semantics. *Foreign Trade Review*, 55(2). <https://doi.org/10.1177/0015732519886771>
- Bıyık, Y. (2019). *Gümrük birliği sürecinde Türkiye'nin demir çelik ticareti performansı: 1996–2014*. Doctoral dissertation, Istanbul Technical University.
- Cooper, C. A., & Massell, B. F. (1965). A new look at customs unions theory. *The Economic Journal*, 75(300), 742–747.
- Dayal, R., & Dayal, N. (1977). Trade creation and trade diversion: New concepts, new methods of measurement. *Weltwirtschaftliches Archiv*, 113, 125–169. <https://doi.org/10.1007/BF02696569>
- Doğan, A., & Uzun, A. (2014). Serbest ticaret anlaşmalarının Türkiye'nin dış ticaretine etkileri. *C. Ü. İktisadi ve İdari Bilimler Dergisi*, 5(1).
- Emir, H. İ. (2017). *Serbest ticaret anlaşmalarının Türkiye ve AB ekonomilerine olan etkileri*. Master's thesis, Istanbul University.

- Erdem, C. (2015). *Serbest ticaret anlaşmalarının Türkiye'nin tarımsal dış ticaretine etkileri*. Specialist thesis, Ministry of Agriculture and Forestry.
- Eren, T. M. (2013). Türkiye'nin serbest ticaret anlaşmalarının dış ticaretine etkileri ve sorunlar. *Maliye ve Finans Yazıları*, 1(98), 28–47.
- European Commission. (2004). *Agri-Food Trade Statistical Factsheet: European Union – Canada*. https://agriculture.ec.europa.eu/system/files/2023-05/agrifood-canada_en.pdf
- European Commission. (2006). *Global Europe: Competing in the World – A contribution to the EU's Growth and Jobs Strategy (COM(2006) 567 final)*. <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0567:FIN:en:PDF>
- Gehrels, F. (1956). Customs unions from a single country viewpoint. *Review of Economic Studies*, 24(1), 61–64.
- Government of Canada. (2022). *Delivering trade benefits during unprecedented times*. https://www.international.gc.ca/trade-commerce/assets/pdfs/economist-economiste/analysis-analyse/benefits-ceta5-avantages_eng.pdf
- Güngör, Ş., & Kaplan, F. (2021). Türkiye'nin Avrupa Birliği'ne sektörel ihracatı: Panel veri analizi. *Süleyman Demirel Üniversitesi Vizyoner Dergisi*, 12(30), 532–551.
- Gurlesel, C. F., & Alkin, K. (2010). *Avrupa Birliği'nin serbest ticaret anlaşmalarına Türkiye'nin dahil edilmesi*. Istanbul Chamber of Commerce. https://www.ab.gov.tr/files/ardb/evt/2_turkiye_ab_iliskileri/2_2_adaylik_sureci/2_2_8_diger/ab_sta_tr_dahil_edilmesi.pdf
- Hakan, H. (2024). *Türkiye'nin serbest ticaret anlaşmaları çerçevesinde İngiltere-Türkiye serbest ticaret anlaşmasının değerlendirilmesi*. Master's thesis, Marmara University.
- Haykır Hobikoğlu, E. (2013). Gümrük birliklerinin ekonomik etkileri ve Türkiye ekonomisi: Gümrük birliği yansımaları. *Sosyal Bilimler Dergisi*, 1, 65–82.
- Johnson, H. G. (1965). An economic theory of protectionism, tariff bargaining and the formation of customs unions. *Journal of Political Economy*, 73(3), 256–283.
- Kalaycı, C. (2017). Serbest ticaret anlaşmalarının Türkiye'nin dış ticaretine etkileri: Açıklanmış karşılaştırmalı üstünlükler endeksi uygulaması. *Uluslararası Ekonomi ve Yenilik Dergisi*, 3(2), 133–147.
- Kızıltan, S. (2021). *Avrupa Birliği'nin diğer ülkelerle imzaladığı ikili anlaşmaların dünya ticareti ve Türkiye ekonomisine etkileri*. Master's thesis, Marmara University.
- Köse, H. (2022). Türkiye'nin AB'nin serbest ticaret anlaşmalarına uyumda yaşadığı sorunların ve serbest ticaret anlaşması politikası farklılıklarının üçüncü ülke pazarlarına erişimine etkisi. *Kocaeli Üniversitesi Sosyal Bilimler Dergisi*, 1(43), 27–49.
- Küçüksakarya, S. (2014). *Serbest ticaret anlaşmaları ve endüstri-ici ticaret: Türkiye üzerine bir inceleme*. Master's thesis, Anadolu University.
- Lipseý, R. G. (1957). The theory of customs unions: Trade diversion and welfare. *Economica*, 24(93), 40–46. <https://doi.org/10.2307/2551626>
- McNulty, J. E. Jr. (1975). *An analysis of trade creation and trade diversion through the estimation of import demand functions: The European Economic Community*. Doctoral dissertation, University of Pennsylvania. ProQuest Dissertations & Theses Global. (302755182). <https://www.proquest.com/dissertations-theses/analysis-trade-creation-diversion-through/docview/302755182/se-2>
- Meade, J. E. (1955). *The theory of customs unions*. Amsterdam: North-Holland Publishing Co.
- Özkale, N. L., & Karaman, F. N. (2006). Gümrük birliğinin statik etkileri. *Uluslararası Ekonomi ve Dış Ticaret Politikaları*, 1(1), 117–138.
- Pomfret, R. (1986). The theory of preferential trading arrangements. *Weltwirtschaftliches Archiv*, 122(3), 439–465. <https://doi.org/10.1007/BF02707373>
- Şahaner, E. (2019). *AB'nin taraf olduğu serbest ticaret anlaşmalarının Türk dış ticaretine etkileri*. Master's thesis, Marmara University.
- Sülün, D. (2017). Lizbon Antlaşması'nın Avrupa Birliği Ortak Ticaret Politikasına etkileri ve Transatlantik Ticaret ve Yatırım Ortaklığı Anlaşması vaka çalışması. *Avrupa Araştırmaları Dergisi*, 25(1), 103–132. <https://doi.org/10.29228/mjes.61>
- Tezbaşaran, H. (2011). *Avrupa Birliği'nin taraf olduğu serbest ticaret anlaşmaları: Türkiye ekonomisine etkileri*. Master's thesis, Ankara University.
- Trading Economics. (2024a). *European Union imports from Algeria*. Retrieved June 12, 2024, from <https://tradingeconomics.com/european-union/imports/algeria>
- Trading Economics. (2024b). *European Union imports of mineral fuels, oils, distillation products from Algeria*. Retrieved July 12, 2024, from <https://tradingeconomics.com/european-union/imports/algeria/mineral-fuels-oils-distillation-products>

- TÜİK. (2024a). *Dış Ticaret İstatistikleri* [Foreign trade statistics]. Retrieved February 22, 2024, from <https://biruni.tuik.gov.tr/disticaretapp/disticaret.zul?param1=4¶m2=0&sitcrev=0&isicrev=0&sayac=5808>
- TÜİK. (2024b). *Dış Ticaret İstatistikleri - HS2 (Fasıl) Sınıflamasına Göre Dış Ticaret* [Foreign trade statistics - by HS2 classification]. Retrieved February 22, 2024, from <https://biruni.tuik.gov.tr/disticaretapp/disticaret.zul?param1=21¶m2=4&sitcrev=0&isicrev=0&sayac=5802>
- Turgut, M., & Ersöz, C. (2024). Narenciye sektörünün ihracat performansı: Hedef pazar analizi. *Tarsus Üniversitesi Uygulamalı Bilimler Fakültesi Dergisi*, 4(1), 62–79.
- Turksam. (2023). *AB-Kanada Ticareti*. Retrieved June 12, 2024, from <https://www.turksam.org/detay-ab-kanada-ticareti>
- Usta, A. (2023). *Türkiye ve AB'nin imzaladığı serbest ticaret anlaşmaları*. İktisadi Kalkınma Vakfı.
- Viner, J. (1950). *The customs union issue* (Studies in the Administration of International Law and Organization, No. 10). Carnegie Endowment for International Peace.
- World Bank. (2014). *Evaluation of the EU-Turkey Customs Union* (Report No. 85830-TR). Retrieved June 16, 2024, from <http://documents.worldbank.org/curated/en/298151468308967367/pdf/858300EW0P1440disclosed090260140TR.pdf>
- Yang, Y., & Wong, K. K. F. (2012). The influence of cultural distance on China inbound tourism flows: A panel data gravity model approach. *Asian Geographer*, 29(1), 21–37. <https://doi.org/10.1080/10225706.2012.662314>

Conflict of Interest: None.

Funding: None.

Ethical Approval: None.

Author Contributions: Cüneyt ÇATUK (100%)

Çıkar Çatışması: Yoktur.

Finansal Destek: Yoktur.

Etik Onay: Yoktur.

Yazar Katkısı: Cüneyt ÇATUK (%100)
